

Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Original) Method of producing a radiolabelled gallium complex by reacting a Ga³⁺ radioisotope with a chelating agent characterised in that the reaction is carried out using microwave activation.
2. (Original) Method according to claim 1 wherein the Ga³⁺ radioisotope is selected from the group consisting of ⁶⁶Ga³⁺, ⁶⁷Ga³⁺ and ⁶⁸Ga³⁺.
3. (Previously presented) Method according to claim 1 wherein the Ga³⁺ radioisotope is ⁶⁸Ga³⁺.
4. (Previously presented) Method according to claim 1 wherein the chelating agent is a macrocyclic chelating agent.
5. (Previously presented) Method according to claim 1 wherein the chelating agent comprises hard donor atoms, preferably O and N atoms.
6. (Previously presented) Method according to claim 1 wherein the chelating agent is a bifunctional chelating agent.
7. (Previously presented) Method according to claim 1 wherein the chelating agent is a bifunctional chelating agent comprising a targeting vector selected from the group consisting of proteins, glycoproteins, lipoproteins, polypeptides, glycopolypeptides, lipopolypeptides, peptides, glycopeptides, lipopeptides, carbohydrates, nucleic acids, oligonucleotides or a part, a fragment, a derivative or a complex of the aforesaid compounds and small organic molecules.

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8. (Original) Method according to claim 7 wherein the target vector is a peptide or oligonucleotide.

9. (Previously presented) Method according to claim 1 wherein the microwave activation is carried out at 80 to 120 W, preferably at 90 to 110 W.

10. (Previously presented) Method according to claim 1 wherein the microwave activation is carried out for 20 s to 2 min, preferably for 30 s to 90 s.

11. (Previously presented) Method according to claim 3 wherein the $^{68}\text{Ga}^{3+}$ is obtained by contacting the eluate from a $^{68}\text{Ge}/^{68}\text{Ga}$ generator with an anion exchanger and eluting $^{68}\text{Ga}^{3+}$ from said anion exchanger.

12. (Original) Method according to claim 11 wherein the $^{68}\text{Ge}/^{68}\text{Ga}$ generator comprises a column comprising titanium dioxide.

13. (Previously presented) Method according to claim 11 wherein the anion exchanger comprises HCO_3^- as counterions.

14. (Currently Amended) Method according to claim 11 wherein the anion exchanger is a strong an anion exchanger comprising quaternary amine functional groups, or the ion exchanger is a anion exchange resin based on polystyrene-divinylbenzene.

15. (Previously presented) Method according to claim 6 for the production of ^{68}Ga -radiolabelled PET tracers.